**Earth in Space Study Guide Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part I: Vocabulary.** Know the following words by writing their definition.

|  |  |
| --- | --- |
| Line Graph |  |
| Bar Graph |  |
| Pie Chart |  |
| Dependent Variable |  |
| Independent Variable |  |
| Legend |  |
| Rotation |  |
| Revolution |  |
| Orbit |  |
| Ellipse |  |
| Axis |  |
| Seasons (know the order) |  |
| Solar Eclipse |  |
| Lunar Eclipse |  |
| Waxing |  |
| Waning |  |
| Crescent |  |
| Gibbous |  |
| Polaris |  |
| Solstice |  |
| Equinox |  |
| Ptolemy |  |
| Copernicus |  |
| Galileo |  |
| Kepler |  |
| Newton |  |

**Part II: Movies:**

1. **Bill Nye:** What are the most important differences between the moon and Earth?
2. What effect does the moon have on Earth?
3. Facts from **The Cosmos:**
   1. How old is our Universe?
   2. How old is our planet?
   3. When did humans first arrive on Earth if the Universe’s “life” was condensed into one calendar year?
   4. Why was Bruno killed by the church?

**Park III: Compare and contrast:** List differences between the following items. Then find one way in which they are the same.

Rotation VS. Revolution

Waxing Crescent vs. Waning Gibbous

Moon Phases vs. Eclipse

Solstice vs. Eclipse

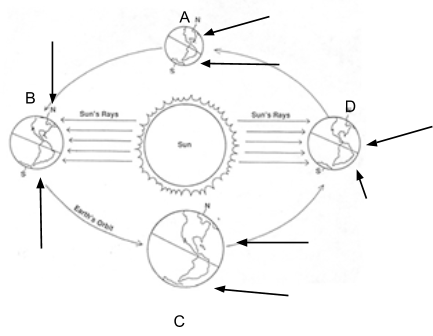
Ellipse vs. Eclipse

**Park IV: Naming a planet:**

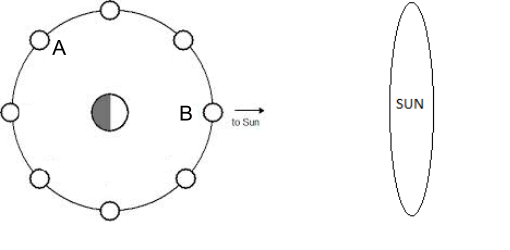
1. What are the requirements that are needed for something to be called a planet?
2. Why was Pluto demoted as a planet? Give at least 4 reasons why.
3. Make a timeline below of the most important Scientific discoveries in Astronomy from the Pluto Reading.
4. How did our knowledge of space evolve from Ptolemy’s idea of Space to our current understanding? Explain.

**Part V: Labeling:**

1. Be able to describe what season it is on Earth based on where Earth is in its orbit around the Sun. Write what season is in both the Northern and Southern Hemispheres at each position on the line next to the planet.



1. Be able to identify the phases of the moon. Draw the phases of the moon that you would see ON EARTH as the moon is in position around the sun. Shade in the side of the moon that you would not see if you were on Earth looking up at the sky. The unshaded part of the moon would be the part that you would see in the sky.



**Part VI: Essay.** You may choose to write a rough draft of these prompts on a separate piece of paper. You will be given one prompt on your essay.

***Write a letter to one of the people you interviewed explaining the cause of seasons. Use the following words in your letter: Axis, Sunlight angle, 23.5 degrees, Orbit.***